#### SAFOTECH: A TAILORED TECHNICAL SUPPORT SOLUTION.

SAFeTECH's well-rounded feature-set offers choices, enabling end-users to get just the help they need when they need it. The foundation of this efficient self-help model is a robust KNOWLEDGeBASE, a rich set of graphical, interactive, personalized Web solutions. In addition, ServiceSam, the solution's virtual support advisor, is available to help guide the customer to the answer they're looking for.

When issues can't be resolved through the KNOWLEDGeBASE or ServiceSam, cases can be escalated in any number of ways. A customer can open a WebCase – a personalized Web page to initiate contact with a Support Analyst (and at the same time view all past support incidents and solutions, all with one click of the mouse). Or they can communicate by Advanced Chat, e-mail, fax or phone. The whole transaction is managed by powerful workflow technology for automatically routing escalated items and reviewing resolution status.

SafeHarbor.com provides companies with customized reports on-site, including KNOWLEDGeBASE usage, incident and solutions reports that monitor activity from all points of contact: self-help, Web cases, phone, chat, and e-mail solutions.

#### SAFOBUSINESS: E-COMMERCE CUSTOMER PURCHASE SUPPORT.

SAFeBUSINESS delivers the same robust set of services that SAFeTECH offers, but adds specific advantages for e-commerce support. The KNOWLEDGeBASE provides interactive content to support customer self-service via the Web. In the e-commerce environment, ServiceSam helps customers find the specific products or features they desire. SAFeBUSINESS also offers tools for pushing information out to users, and supports cross-selling and up-selling.

The SAFeBUSINESS advantage includes transaction services and user profiling, as well as customized reporting on site usage. No other company can match SafeHarbor.com's combination of world-class technology, people and processes to deliver these services.



SafeHarbor.com www.safeharbor.com

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Satsop Development Park
Satsop, Washington

Marketing and Sales 1326 5th Avenue Seattle, Washington

206/ 903-1880 sales@safeharbor.com

#### 

#### SAFEHARBOR.COM CLIENTS

#### ALIVE.COM

A multimedia application service provider (ASP), Alive.com delivers applications and services which empower non-technical people with the latest Web media technologies, including streaming media. Alive.com products and services power Web sites and portals with multimedia creation, hosting and management tools, enabling visitors to create and manage media-enhanced content easily on any Web site. The result is more engaging Web applications, more compelling information sharing and increased revenue opportunities for organizations powered by Alive.com.

#### AMDAHL CORPORATION

A wholly owned subsidiary of Fujitsu Limited, Amdahl Corporation provides integrated computing solutions that meet the needs of many of the largest users of information technology in the world. Amdahl develops and deploys systems, services and support that meet the needs of the world's most computer-intensive organizations and environments. With more than 28 years of experience delivering large-scale computing and client/server technology, the Amdahl mission is to deliver innovative systems, services and support to lead customers to the most complete and powerful data centers of the 21st century.

#### AVENTAIL

With vision, technology, expertise and commitment, Aventail enables large global enterprises to build business partner networks rapidly so they can win at e-business. Aventail helps companies drive revenue and market share by enabling the rapid activation of business-to-business partnerships over the Internet. That means businesses can conduct serious commerce and collaboration online, securely and with anyone - anytime, anywhere. Aventail guarantees fast, flexible service for building scalable, manageable online business communities, whatever the requirements. Aventail's vision is to make it as easy to activate a business relationship online as it is to make a phone call.

#### **ECHARGE**

The next generation online payments company, eCharge Corporation is improving global online payment methods by offering Internet users feature-rich, convenient and secure ways of making online purchases. eCharge Corp.'s payment solutions are used by Internet merchants, telephone companies and Internet Service Providers worldwide. Headquartered in Seattle, Washington, eCharge has offices in Vancouver, BC, London and Tokyo.

#### **ELF TECHNOLOGIES**

ELF is a privately held corporation, headquartered on Mercer Island in Washington state, with international offices in Dublin and Sydney. ELF is a member of IBM's award-winning BESTeam program and a premium member of the Lotus® Business Partner Program. ELF's innovative software and services help insurance claims departments, corporate law departments and law firms measurably improve the handling and management of legal work. Primary services include electronic invoicing, collaborative case management, hosting of integrated applications and managed connections with outside counsel.

#### ETERA.COM

Growing perennials for more than 20 years in the Western Washington Skagit Valley, Etera, until recently, sold only to retailers across the country. Now for the first time, plants grown with the patented Etera Perennial Growing process are available directly to the home gardener via the Web, through Etera.com's online gardening center. This "virtual garden store" is a one-stop shop where garden enthusiasts can shop, get advice and connect with growers and club members.

#### IMAGEX.COM

A leading business-to-business Internet market maker for printed business materials, ImageX.com offers an end-to-end solution that streamlines the procurement process for business printing customers, their employees and other end users of printed products, printing manufacturers and raw material suppliers to the printing industry. The company provides e-commerce solutions that improve the way businesses acquire marketing communications materials, ranging from business cards to high-end printed materials. ImageX.com's nationwide Web-based services include the Corporate Online Printing Center; the Small Business Printing Center; PrintBid.com, an online bidding system for more than 2,800 print buyers and more than 4,000 printers; and PaperDeals.com, an online auction site for commercial paper stock.

#### TELEPOST

TelePost is a global provider of advanced business communications services for the SOHO and small/medium enterprise. TelePost partners with telecommunication companies, Internet Service Providers (ISPs) and other communication providers to market a comprehensive suite of communication services to this market. TelePost integrates both the Internet and the public telephone network to offer reliable, business-quality connections using a simple Web-browser interface.

#### TRISCEND

Located in Mountain View, Calif., Triscend is a privately-held fabless semiconductor company pioneering a new era in embedded systems processing chips, including the Configurable System-on-Chip, a single-chip combination of a dedicated ("hard-wired") industry-standard microprocessor, programmable logic, a dedicated system bus and program memory. When these technologies are tightly integrated on a chip, an embedded system designer can create a customized processing platform instantly, which permits extremely rapid time-to-market advantages without sacrificing product differentiation. Triscend is delivering the industry's first Configurable System-on-Chip (CSoC) devices; the E5 family; and the companion software development tool, the FastChip™ Development System.

An embedded system is defined as a microprocessor-based electronic system that performs an application-specific set of functions. These systems exist in many industries, including automotive, communications, consumer, and industrial. Examples of an embedded system include the circuitry that runs anti-lock brakes as well as the electronics that control a microwave oven, set-top box and cable modern.



SafeHarbor.com www.safeharbor.com

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206/ 903-1880 sales@safeharbor.com The future of support belongs to Contact
Centers—where service is enriched by
the Web—not defined by the telephone.
SafeHarbor.com seamlessly integrates multiple
methods of contact: Web-based self-help,
Web Cases, real-time communications such as
Advanced Chat and on-line whiteboards,
as well as the telephone.

Good-bye Call Center. **HELLO** Contact Center

We've found that given clear, intuitive and powerful tools, most people prefer to find answers to their questions on the Web. And with a well stocked, thoughtfully created Knowledge Base, those solutions are right at customers' fingertips, whether they're in Boston or Bombay. But if an issue isn't resolved using the Knowledge Base, the beauty of SafeHarbor.com's Contact Center really kicks in—because our support specialists aren't restricted to the telephone to understand a problem or describe a solution.

Your end-users and our support analysts can collaborate in a multitude of ways. For example, end-users can open a Web Case, submitting an inquiry directly to a support analyst from within your Web site. End-users and support analysts can also communicate in real time—exchanging documents and graphics, jumping to other useful Web sites, or sharing an electronic whiteboard to illustrate a point. The final safety net? The telephone. Our state-of-the-art telephony technology allows customers to be connected with the sound of their support analyst's voice any time—the old-fashioned, but sometimes necessary way.

Call Centers
revolve around the
telephone. While
SafeHarbor.com's
Contact Center
utilizes the Web
and its cutting edge
tools, in addition to
the telephone, to
deliver informationrich support that's
efficient, intuitive
and empowering.

SafeHarbor.com 206-903-1880 sales@safeharbor.com

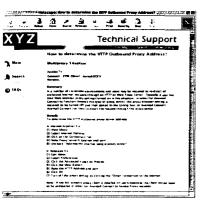


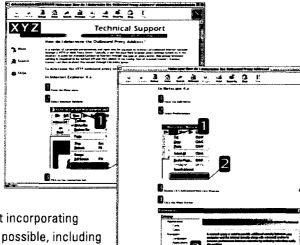
As support issues become known, our highly trained knowledge engineers develop, design, test and refine visual solutions.

It's so much easier to understand the solution to a problem when you can see it. Which is why people appreciate the highly visual, easy-to-understand support they get with our Web solutions—in a personalized environment that's tuned in to their information, their history and their needs.

Knowledge Base technology—

a **POWERHOUSE**of empowering information.





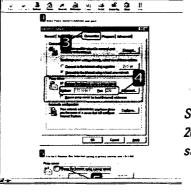
Compare these solutions: traditional support relying on mind-numbing text (the screen on the far left), and ours, incorporating dynamic graphics and call-outs.
Which would your customers prefer?

Our solutions are built incorporating visual aids whenever possible, including diagrams, screen shots and schematics for clarity—even audio and video.

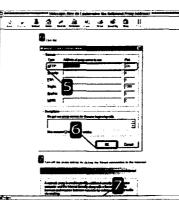
Then they're added to your continually evolving "central warehouse" of support solutions—your Knowledge Base.

Behold the power of the Knowledge Base:

- It provides immediate 24x7 access to up-to-date, fully engineered solutions from any Web browser.
- It allows issues to be solved once and delivered countless times, consistently.
- It impacts company profitability by reducing costly support calls



SafeHarbor.com 206-903-1880 sales@safeharbor.com



SAFET ARBOR.com

#### Sometimes end-users have specific questions that can only be answered by a support analyst.

Traditional e-mail support requires customers to leave your Web site to find help. But with SafeHarbor.com's Web-based support, your end-users can open a Web Case, submitting an inquiry directly to a support analyst, without leaving your site. They'll be notified of progress on their case every step of the way-they'll even know which analyst has been assigned to their case and when work began on it. And they'll receive a personal message the moment their solution is ready.

## Cases The best way to **KEEP CUSTOMERS** -literally.

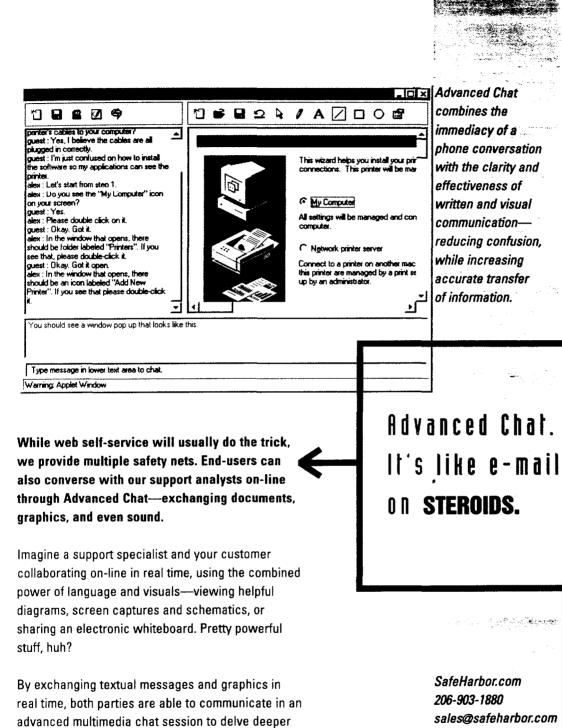
suppor case details page-which This page shows the entire life of this case. All correspondence between you and our technicians is displayed here Assigned to:Angelina L Case # 205 Submitted on: 11/5/99 Your 1'd like to include Powerpoint slides in my e-show. How do I 11/5/99 tion: do that? The state of the s 206-903-1880

Users can submit a Web Case directly to a support analyst. Then access the solution on their personalized support stores all of their previous Web Case interactions for easy reference.

SafeHarbor.com sales@safeharbor.com

Web Case solutions can be as simple as a textual response, or as comprehensive as an audio/visual demonstration. And all solutions are presented on a support page personalized specifically for the individual end-user. So their complete history of Web Cases and support solutions will always be at their fingertips for later reference.





into complex issues.

And Advanced Chat works particularly well in the world of e-commerce support — so customers can get help while they're still online — reducing abandonment rates and improving shopping experiences.

SAFEF ARBOR.com

Safe Harbor.com doesn't have typical employees. And we're definitely not doing business in an average office. Everything about SafeHarbor.com is a little different—just the way we like it.

Safe Harbor.com was established in 1998 with one mission—to provide revolutionary customer, technical, e-commerce, sales and HR support services. Our approach is wildly different than that of most support service providers simply because we're focused on the Web and enhanced by the telephone—not vice versa.

Others in the support services industry have been slow to endorse the incredible capabilities of the Web. Large call center firms have huge investments in phone-based support infrastructures and associated variable pricing structures. It would be incredibly costly for them to make such a dramatic change in direction. Thus big ships are slow to turn.

But the founders of SafeHarbor.com quickly recognized the Web's potential to radically improve the methodology of support delivery. Tapping their experience in high technology, the Internet, large industry, and start up environments, they developed the business and service strategies that would make the next generation of support services a reality. Today, we leverage the multimedia capabilities of the Web to create dynamic self-help environments, enhanced with direct support analyst interaction—all to provide an improved level of service for a controlled, flat cost. As they say, the rest is history. And it's making history of traditional telephone-based support.

SafeHarbor.com's founders grew up together in beautiful Grays Harbor County, on the Pacific Coast of Washington State's Olympic Peninsula. And when it came time to decide where to set up shop, they just couldn't pass up the opportunity to come home.

SafeHarbor.com's corporate headquarters and Contact Center are located in the Satsop Development Park in rural Grays Harbor County. Here, we've discovered a stable and motivated workforce and have been able to take advantage of significant financial and educational incentives provided by the federal, state and local governments. And we've quickly established excellent rapport and working relationships with key business and governmental leaders.

Our Sales, Marketing and Partnership Management functions are based in downtown Seattle, in the historic Skinner Building.

Safe Harb is not yo normal **s**i company

There's no better way to get close to your customers than by providing support services in the dynamic world of the Web. Where people are empowered to find immediate, consistent, and easy-to-understand information every time.

Imagine the efficiencies of answering every support question just once. The traditional phone-based support model has you paying techs to answer the same common questions over and over. Whereas we develop dynamic, easy-to-understand graphic solutions to your end-users' most common issues—then share them once with the whole world.

When more complicated issues arise, end-users can reach our support analysts by submitting a Web Case, an e-mail-like inquiry, from within your site. End-users and analysts can also use Advanced Chat to communicate on-line in real time, sharing visuals and documents.

Personalized, Web-ized support builds customer relationships and helps bolster your bottom line. With SafeHarbor.com, you simply pay a flat monthly subscription fee. So you never have to worry about the variable costs of providing telephone support for more and more customers.



## Reprinted from THE WALL STREET JOURNAL.

WEDNESDAY, MARCH 8, 2000

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## Despite Perks, Rural Wash. Is Hard Sell for Tech Firms

By Helen Jung

Staff Reporter of THE WALL STREET JOURNAL SATSOP, Wash. — SafeHarbor.com Inc. is doing in Grays Harbor County just what the Legislature envisioned last year when it trumpeted the passage of pural economic trumpeted trumpeted the passage of pural economic trumpeted t

it trumpeted the passage of rural economic-development incentives. The problem is no one has been following its lead.

The Internet technical help-desk company employs 120 people in this distressed swatch of Western Washington, many of whom once worked in the county's now-shuttered sawmills or constructing its never-finished nuclear-power plant. And after only 16 months in business, the company already is bringing to the county some of the tech riches that make Seattle sizzle.

But while SafeHarbor is certainly happy to save about \$200,000 this year on the state business and occupation tax, its three founders didn't settle on Satsop because Olympia gave them a break. The founders, all natives of nearby Hoquiam, decided to base their company in Grays Harbor to try to help reverse the string of bad luck and failed ventures that has long plagued the county.

In fact, only three tech companies around the state, including SafeHarbor, are taking advantage of the tax credit, a testament to how tough it is for the government to bridge the gap between what's known as "the two Washingtons." The theory was that by promising credits to technology companies that move or expand to rural counties — defined by the state as those with 100 or fewer residents per square mile — more software and Internet concerns would be persuaded to set up shop outside the Puget Sound metropolitan area. So far, however, it hasn't worked out that way.

It's simply too difficult for tech companies to act as the lone beacon in a rural community, says Michael Verchot, director of the Business and Economic Development Program at the University of Washington, which studies and works with economically distressed areas. "If you start at 30 employees and need to go to 100, where do you get the other 70?" Mr. Verchot asks. "It's not like you can walk across the street and get them from

SAFETTARBOR.com

- Employees: 120, expected to increase to 300 people by end of 2000
- Founded: 1998 by three Hoquiam natives
- Location: Satsop, Wash.
- Business: Providing technical help over the Internet or by phone to customers of Internet companies
- Investors include: Olympic Venture Partners of Kirkland, Wash.; Manchester, N.H.-based Silknet Software; and nine individual investors, mostly Grays Harbor residents
- Projected revenue for 2000: \$8 million

another company, and so almost regardless of how many tax breaks you provide, there is going to be that issue."

Officials with Gov. Gary Locke's office say they aren't disheartened — the tax credit is only six months old, and they are adding other legislative pieces to make rural Washington more attractive to businesses. But even with those incentives, officials say they still face challenges in persuading companies to locate where the jobs are most needed.

And technology-industry observers warn that it won't get any easier, as Seattle and its environs, already packed with tech start-ups, will just continue to spawn and draw more. Indeed, for most players in the sector, it makes sense to be where the action is, not a two-hour-drive away from the venture capitalists, consultants and skilled labor. Even SafeHarbor keeps a sales office in Seattle.

SafeHarbor's president, Bo Wandell, knows all about that. He says one venture investor who was crazy about the company's business plan had trouble getting over the fact that it was in the technological boonies. Recalls Mr. Wandell: "He said, 'Why don't you just do it in Seattle so

I can sleep at night?" It took a lot of persuading, but he got over his fears, Mr. Wandell adds.

So what will entice more companies to set up shop outside the Seattle hub?

Sheila Martin, executive policy adviser to Gov. Locke, says a major element missing from rural Washington's arsenal is a reliable telecommunications networks capable of handling large amounts of data. As the legislative session enters its final days, lawmakers are considering measures that would allow rural port district and public-utility agencies to sell on a wholesale basis telecom services in their regions and that would ease regulations on telecom companies that set up separate subsidiaries to offer high-speed service to rural regions.

Dr. Martin also says the state hopes to single out companies whose businesses — like SafeHarbor's call-in and Web-based technical help desk — don't need to be in the heart of the dot-com corridor and could take advantage of the cheaper real estate.

#### In Fathers' Footsteps

SafeHarbor's founders — Mr. Wandell, Brian Sterling and Bill Miller, all in their 40s — grew up in Hoquiam back when the logging and forest-products industry was the big driver of the local economy. At the time, the Washington Public Power Supply System, now called Energy Northwest Inc., was spending billions of dollars building a nuclear-power plant in Satsop that was to have provided more than 5,000 jobs during peak construction.

They graduated from Hoquiam High School in 1973, then pursued careers outside the area. Mr. Wandell worked in sales for Silicon Valley tech firms and most recently headed global sales for Seattle's iCat Corp.; Mr. Sterling, a chemical engineer, ran Amerada Hess Corp.'s oil refinery in St. Croix; and Mr. Miller, a former Microsoft executive, became general partner of Kirkland-based venture-capital firm Olympic Venture Partners.

Meanwhile, the county's job base was beginning to disintegrate. The WPPSS project, which suffered huge cost overruns and couldn't overcome antinuclear-power sentiment, was terminated in 1982.

(over please)

Then came the 1990 listing of northern spotted owls as threatened under the Endangered Species Act, which ultimately led to massive cutbacks in logging on federal land, idling mills and laying off workers throughout the Northwest. The fishing industry in the county suffered, too, as salmon catches dwindled. And in 1997, Massachusetts-based Ocean Spray Cranberries Inc. closed its juice-bottling operation in Markham, saying it was too far from its biggest markets.

So why did an area well past its economic prime appeal to a tech start-up? Mr. Wandell says the trio had long wanted to help revive the area. He recalls how Sen. Sid Snyder, a Long Beach Democrat, responded when Mr. Wandell asked why the three should take the risk of opening a business in the technological boondocks. "He said, 'Because your fathers and grandfathers took those same types of risks to build what Grays Harbor became, and

now it's your turn."

Of course, financial incentives didn't hurt. And the rent is cheap — less than \$1 a square foot — at the Satsop Development Park, located in the shadow of the two, 56-story cooling towers left behind when the power-plant project went belly-up. Perks also include low-cost financing from the Public Development Agency for tenant improvements, furniture and equipment, says Mr. Sterling, SafeHarbor's CEO.

In addition, the Bonneville Power Administration recently wired the area with a fiber-optic cable telecom system and is leasing space on the system to the PDA and the Satsop Development Park, giving SafeHarbor access to a state-of-the-art telecom network, able to handle the phone and Internet traffic on par with

Seattle.

#### **Second Chances**

But many in Grays Harbor County — where the unemployment rate is 9%, compared with King County's 3.4% and where one out of 10 residents receives food stamps — don't care why SafeHarbor chose Satsop. They're just glad it did.

"Most people have had to leave the community to make it," says Rich Miller, a 45-year-old resident of nearby Montesano and a manager at SafeHarbor. After working jobs ranging from repairing logging trucks to selling professional beauty

supplies, Mr. Miller says he is finally earning the same wages, about \$39,000 a year, that he made 20 years ago as a logger. It's a welcome change.

"At my bank, now when I cash my paycheck, they recognize the SafeHarbor check," he says, "and that that's a good

check."

Comet Brower, a 31-year-old Montesano resident, jumped at the chance to work for SafeHarbor, overseeing the employees who staff the phones at the technical help desk. He had worked in Seattle for seven years in technical-support jobs but wanted to return to Grays Harbor County, he says, and at SafeHarbor he can be in high tech without having to deal with Seattle's bigcity problems.

SafeHarbor plans to boost the payroll to 300 by the end of this year and to go public

within the next 12 months.

Two other companies — Sunpro Inc. of Zillah, Wash., and an undisclosed firm, both of which already operated in rural areas in the state before the incentives — have applied for the tax break as well.

#### **Staying Power**

SafeHarbor officials advise other tech companies not to be wary of rural Washington, where they say there's a trainable work force and people dedicated to living in the region and so less likely to be lured away by competitors.

In Seattle, "the average tenure per employee would be six to nine months, and they'd turn out and go to another company," says Mr. Miller, SafeHarbor's chairman. But in Grays Harbor, "they'll be

there six to nine years."

Mr. Sterling is confident other companies will ultimately follow SafeHarbor to outlying counties, government incentives or no. He believes they should, for the state's future. "We're accepting money from venture capitalists and customers in Silicon Valley and Seattle and New York and transferring it to our employees in Grays Harbor," he says.

Indeed, the prospect of turning former loggers into the newest Internet millionaires has many excited that the differences between the two Washingtons can be bridged. "Everyone wants them to make good on this thing," says Bob Beerbower, a Grays Harbor County commissioner. "If they make good, then we'll make good."

BUILDING THE .COM ENTERPRISE





## ASP anchors customer data

SafeHarbor.com offers outsourced, Web-based user support systems

#### BY JOHN MADDEN

IT MANAGERS FEELING ADRIFT WHEN IT COMES to implementing Web-enabled customer service might find smoother sailing going through SafeHarbor.com Inc.

The Satsop, Wash., company offers outsourced customer service systems through an ASP (application service provider) model. For a fixed monthly fee, the company will host and manage a company's Webbased customer service and support system, which is transparent to the customer.

A central part of the system is a customized online KnowledgeBase feature that lets customers access answers to previously asked questions and other information over the Internet.

Like other ASPs, the company's service is based on a monthly pricing model that can range, on average, from \$15,000 to \$20,000, according to projected usage of the site with no setup fee. Average installation takes about eight weeks: four weeks to build the KnowledgeBase and four more for actual deployment.

One of SafeHarbor.com's recent customers is CarrierPoint Inc., an Atlanta-based online marketplace for the trucking and shipping industries. CarrierPoint is in the middle of its eight-week deployment

#### SafeHarbor.com

- ▶ Headquarters in Satsop, Wash, at former nuclear power plant site
- Customer service outsourcer with an ASP model
- ► Services include KnowledgeBase repository of customer histories
- ➤ Customers include Alive.com, eCharge Corp. and Amdahl Corp.

process. At this point, the company determines the most common customer issues and questions and establishes how information can be added to the Knowledge-Base, said Robert Boyle, senior vice president of operations.

After considering other options, Boyle said the company went with SafeHarbor. com because the outsourcer has "sort of a desired bias toward creating a self-service environment." Boyle added that SafeHarbor.com will be able to better monitor the most common customer questions and track query resolutions and how long they take.

A new article can be added to the KnowledgeBase within 4 hours, said Steve Lewis, SafeHarbor.com's chief technology officer. About 70 percent to 80 percent of all inquiries can be answered using the KnowledgeBase, which has an easy-to-understand graphical interface. Also included is Service-Sam, a feature that guides customers through the support system.

SafeHarbor.com's service-level agreements guarantee 99.95 percent availability for applications. SafeHarbor.com's underlying infrastructure is built on Silknet Software Inc.'s applications running on Windows NT servers. The company has relationships with two telecommunications

### SafeHarbor.com

**◆ CONTINUED FROM PAGE 53** 

carriers—with plans to partner with others—to provide the network to deliver the applications.

As for reliability, the company, founded in April 1998, has an advantage in its location: the site of a nuclear power plant that was abandoned before going live. Safe-Harbor.com is not only tapped into a solid electrical grid but boasts an impressive back-up power source.

Denis Pombriant, an analyst at Aberdeen Group, in Boston, said SafeHar-

bor.com is answering the "big interest in corporate America to outsource anything that is noncore."

The company's ASP pricing model has the lure of being more affordable than building costly customer service systems internally, Pombriant said. Also, "one of the things you get in an ASP model is access to and availability of trained staff," he said, adding that all corners of IT continue to suffer from a labor shortage.

But like any ASP, SafeHarbor.com's model will be tested over time. "They're a young startup. ... It's going to take some time to see how it pans out," he said.

SafeHarbor.com can be reached at (206) 903-1880 or www.safeharbor.com. ◀



www.safeharbor.com 1.800.480.5777 Robert C. Lahmann – Bonneville Power Administration, Transmission Business Line Account Executive

Mr. Lahmann has been with Bonneville Power Administration since 1984 in a number of line and management positions, all of which have involved contract negotiation and administration and the policy aspects of those contracting areas. Mr. Lahmann has worked in contracting for the acquisition of goods and services, the sale of power, and the leasing of dark fiber-optic cable. Mr. Lahmann holds degrees in electrical engineering and law from the University of Washington.

#### Bonneville Power Administration

The Bonneville Power Administration is an agency of the U.S. Department of Energy. It wholesales electric power produced at 29 federal dams located in the Columbia-Snake River Basin in the northwestern U.S., as well as the power from one non-federal nuclear plant. BPA is a federal utility, specifically one of five power marketing agencies (PMAs). The others are the Southeast, Southwest, Western Area and Alaska power administrations.

BPA was founded in 1937. It was established in the Bonneville Project Act, originally as an interim agency to market the power produced by Bonneville Dam. The dam was then under construction on the Columbia River about 45 miles east of Portland, Oregon. In 1940, BPA's marketing responsibilities were broadened to include the power from Grand Coulee Dam in central Washington. Eventually, BPA's status was changed to that of a permanent agency, first within the U.S. Department of Interior, then in 1977, within the U.S. Department of Energy.

#### **BPA Press Release**

Portland, Ore. – Small Towns and communities across the state of Washington will have access to the information superhighway thanks to an agreement announced today. The Bonneville Power Administration and the Washington Public Utility Districts Association signed an agreement to make fiber optic cables available to public and private entities and the communities they serve.

Greg Marney, director of telecommunications for WPUDA, said the network is expected to be running by early 2000 with interconnection points in every county where BPA fiber now runs, within two years. The network will provide access to telecommunication transport between the entities while individual members will operate the network within their own services areas.

"This agreement will bring the information superhighway to rural areas," said Jack Robertson, former BPA deputy administrator. "We are offering special access to anyone who will provide services to those areas at a reasonable cost. Washington PUD Association is the first in Washington to step up to provide this service."

"These lines will enhance utility operations, but we're also pleased to be working with Bonneville to open up available lines to our communities," said Don Godard, manager of Grant County PUD and chairperson of a committee overseeing development of the public telecommunications network. "Many PUDs and other utilities serve communities that currently do not have high speed telecommunication facilities.

WPUDA represents the 28 PUDs that provide electricity and water service in Washington. The association is organizing a nonprofit corporation to set up and operate the network. Sixteen PUDs will belong to the organization initially. Other utilities and other entities may join in the future.

The utilities will use the network for utility purposes and plan to make excess capacity available to other organizations, including schools, hospitals, emergency services, museums, libraries, businesses that contribute to rural economic development, and federal, state, local and tribal governments. The utilities intend to provide open access to the network at nondiscriminatory, nonprofit, cost-based rates.

Rural communities are not economically attractive to most local and long haul telecommunications companies because of the low population densities and remoteness of connections. Rates can be four times higher than that for urban areas. But end user costs for rural and remote areas served by the agreement will be roughly comparable to those paid by end users in larger communities in the Northwest. BPA's rates for the public benefits fiber program fully recover BPA's costs to install and operate.

#### **BPA Press Release**

Spokane, Wash. - More than 100 mayors and community leaders from the Northwest will gather in Spokane on Sept. 22 and 23 at the Spokane Center to discuss how they can bring the information superhighway to their rural areas.

The media are invited to attend the "Communication is at Hand" conference. The event is cosponsored by the Bonneville Power Administration and the Washington PUD Association. It will begin at 9 a.m. on Wednesday and 8:30 a.m. on Thursday.

Fiber optics - with its bounty of the Internet, high-speed computers and e-commerce - is becoming a fact of life for cities where it is replacing telephone wires and co-axial cable as the main source of data and information. That's not so for rural areas where the low number of users per mile makes the cost of installing fiber optics cable too expensive.

"The information superhighway has become as critical to the economic health of towns across the Northwest as electricity was 60 years ago," says Jack Robertson, BPA deputy administrator. "Deregulation of the telecommunication industry and population shifts are changing the rules. Businesses concerned about the quality of life for employees, as well as low overhead and labor rates, look to rural areas when siting new facilities. But they won't go there if they don't have a link to the world of information."

Speakers include State Senator Lisa Brown of Washington, Montana Public Utility Commissioner Bob Rowe, General Manager William Ray from the Glasgow, Ky., Energy Plant Board, Dr. William Melody of the Delft University of Technology in the Netherlands, Dr. Edwin Parker, technology expert and author and Executive Director Steve Johnson of the Washington PUD Association. Other speakers include utility and telecommunications managers from Oregon, Washington, Idaho and Montana and across the U.S.

Supporting sponsors are Alcoa Fujikura, Ltd.., Nortel Networks, and Lucent Technologies. Connect directly to the conference Web site at <a href="http://www.bpa.gov/Corporate/KC/fiber/conference.htm">http://www.bpa.gov/Corporate/KC/fiber/conference.htm</a>

#### **BPA Press Release**

PORTLAND, Ore. – A first-ever agreement will put the information superhighway within reach for a group of coastal communities. Mayors and representatives from Reedsport and Newport, Ore., Coos, Lane and Lincoln counties and from several Oregon economic development groups will attend a signing ceremony:

Wednesday, June 9, 1999, 10 a.m.

Lane Substation, 28190 K.R. Nielson Road, Eugene OR

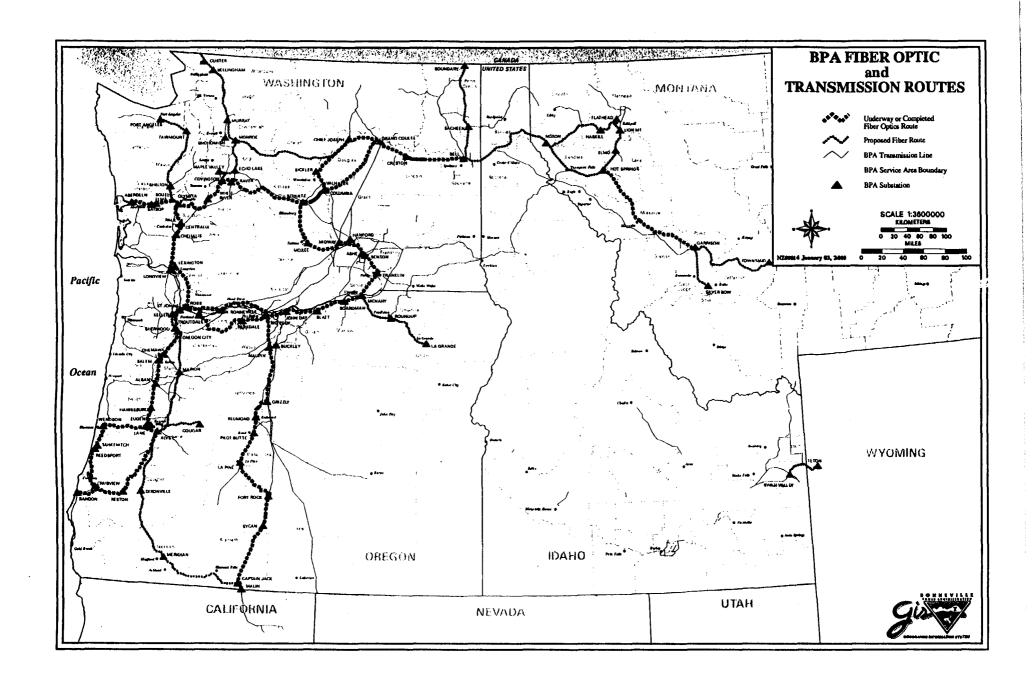
They hope the agreement will help diversify the economy and upgrade communications for schools, hospitals, libraries and other public services in their coastal communities. The upgrade should offset jobs lost to downturns in the fishing and timber industries.

Jack Robertson, deputy administrator for the Bonneville Power Administration, and Randall Kowalke, chairman of the Economic Development Alliance of Lincoln County, will sign the agreement.

Fiber optics – with its bounty of the Internet, high-speed computers and e-commerce – is becoming a fact of life for Oregon cities where it is replacing telephone wires and co-axial cable as the main source of data and information. But that's not so for rural areas where the low number of users per mile makes the cost of installing fiber optics cable too expensive. The agreement is the first step to put rural areas on par with urban areas.

Lane Substation is the hub for a fiber optics route that will run from the suburbs of Eugene to Florence, Ore., and down to near Coos Bay. Workers will install fiber optic cable on an existing BPA transmission line. BPA will use the cable to operate part of the Northwest's transmission grid. The agreement sets aside some of the fibers for communities along the route.

To reach Lane Substation, take I-5 south to Belt Line Road. At the intersection of Belt Line and W. 11th Street (Highway 126) turn right (west). Go 1.5 miles and angle left onto K.R. Nielson Road. Travel 0.5 miles west to the substation.



John P. Andrist - CEO and President, North Cascades Broadcasting, Inc., NCI Data.com, Inc.

Mr. Andrist is CEO and President of North Cascades Broadcasting, Inc., which owns and operates two commercial FM Stations and one commercial AM station in the community of Omak, Washington. Also, he is CEO and President of NCI Data.com, Inc., a competitive local exchange carrier company serving all of Okanogan County with broadband data services. Both companies are wholly owned by John and his wife Becki Andrist.

John grew up in Omak and has owned and operated North Cascades Broadcasting since 1989. NCI Data.com was incorporated in 1999. John serves on several community boards and is Chairman of Partnership 2005 which is a County sanctioned organization working on economic diversification. John's media and communications background spans over 25 years mostly in rural Okanogan County.

#### NCI Data.com, Inc.

We provide reliable, cost-effective dial-up access to the Internet for local individuals and businesses in the Omak and Okanogan area. In addition, we provide e-mail services and web hosting on our local server.

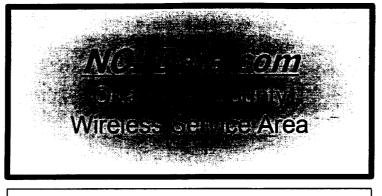
#### <u>ConnectOkanogan</u>

The purpose of ConnectOkanogan is to facilitate Internet-based economic development in the Okanogan Region of North Central Washington State. The region stretches from the crest of the North Cascades Mountains on the west to the Kettle River Range of the Rocky Mountains on the east and from the Canadian Border on the north to the Big Bend of the Columbia River on the south. This area is fortunate in having both high quality of life and virtually unlimited communications bandwidth availability. Dedicated wireless connections to the Internet up to T-3 or 11mb capacity are available in most areas of the County at very competitive prices. There is a growing group of small to medium-sized Internet-based businesses in the area and facilities to accommodate many more.

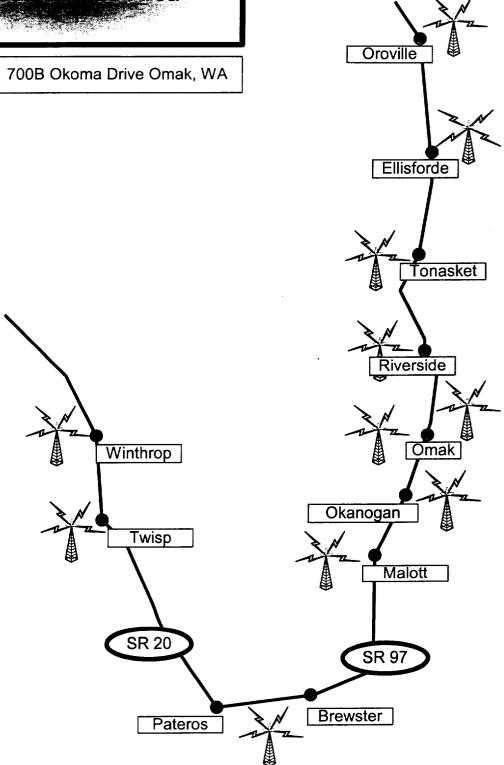
Our communities are small and friendly with diverse populations, clean air and water, inexpensive real estate and abundant recreation. The population density is very low but unlike some of the barren and waterless regions of the west we have two major mountain ranges, numerous rivers including the Columbia and Okanogan, large forests and rolling highlands. Our economy has traditionally been based on timber, cattle and farming. The Okanogan Valley is one of the largest apple-growing areas in the world. The area also has a large number of artists and craftspeople producing an amazing range of fine products.

#### Bear Creek Lumber

Bear Creek Lumber is a family owned and operated lumber products distributor located in Okanogan County in North Central Washington State, the heart of the Pacific Northwest timber region. BCL has been in operation since 1977, providing top quality products to builders throughout North America and the Pacific Basin. Only in the past three years have we been on the Web. We specialize in the hard-to-find species, such as Western Red Cedar and Alaskan Yellow Cedar. In addition, we also carry an extensive selection of Redwood, Douglas Fir, Ponderosa Pine/Spruce, and also Appalachian Hardwoods. Bear Creek has one of the largest selections of patterns and grades available at one location, with over one million board feet of inventory kept in stock throughout the year. We can ship to any location, including remote offshore destinations, such as Guam or the Virgin Islands.



509 826-0300 700B Okoma Drive Omak, WA







# Presentation to Federal/State Joint Conference on Advanced Services

William R. Kopp
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### Presentation Objectives

- Inform Attendees of NoaNet Vision
- Provide Overview of NoaNet Infrastructure/Connectivity
- Summarize Internet Connectivity Challenges for Rural Northwest
- Summarize Local Loop Challenges
- Q&A
- Closing



### The NoaNet Vision

- Enable Advanced Energy Management Services to Northwest Utilities (Rural)
- Serve Rural Northwest Communities
   Affordable "Cost Based" Access to Advanced
   Telecommunications Transport
- Provide "Open Access" Transport
- Bridge the Digital Divide
- Enable Rural Economic Development



## NoaNet Infrastructure in Washington State

- Four "Public Purpose" BPA Fibers
  - Ingress/Egress in Rural Counties
    - (Less than 100 Pop Per Sq. Mile)
- Twenty + Telecommunication Shelters
  - NoaNet POP
  - Co-Locate Space for Interconnect
- Technologies
  - SONET for Reliability
  - Primarily IP Transport (Layer 3)
  - TDM Connectivity for "Legacy Systems"



## **Internet Connectivity**

- Internet Interconnection at Network Access Points (NAP's) Seattle
- Major Carriers (Qwest, L3, AT&T) Bypass Rural Areas, No Ingress/Egress
- Lack of Any or Affordable Transport to NAP's from Rural Counties/Communities
- Un-Fulfilled Requests for Internet Transport
- Inhibits Delivery of Advanced Services to Rural Communities



## Rural Local Loop Challenges

- Existing Infrastructure
  - Multi-State ILEC
  - Regional ILEC
  - Private Rural ILEC
  - Public ILEC
  - CATV
  - Wireless
- Which Technology?
- Which Business Approach to Infrastructure "Open Access, Monopolistic"?



## Rural Local Loop Challenges

- Infrastructure
  - Rural Local Loop Investment by Multi-State ILEC Not Probable/Not Profitable?
    - ROI of 36 Months?
  - Overbuild Activities by Regional/Rural Providers (Independent/REA/Co-Op)
    - ROI Longer but Encouraging Competition?
  - Overbuild Activities by Competitive Providers (CATV, ISP's, CLEC)
    - ROI of 36 Months?



## Rural Local Loop Challenges

- Overbuild Activities by Entities Committed to "Open Access"
  - ROI 15/20 Years?
- Economies of Scale, Build it Once..... Everyone Shares Single Infrastructure
  - Enables Competition
  - Reduced Capital Requirements to Compete in Local Loop



### The Future

- Streaming Multimedia
  - The Next Killer App
- Zero-Cost Infrastructure
- Content/Applications Providers Pay for Transport on Transaction Basis?
- Create a Rural Society of Digital "Haves" vs. Have-Not's"
- Enable the Digital Economy in Rural NW

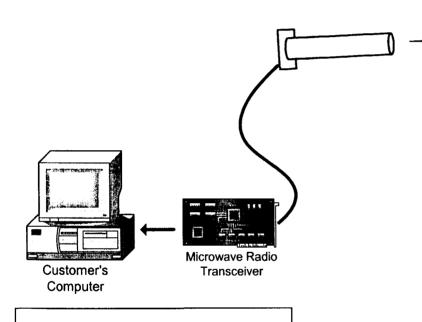


Q&A

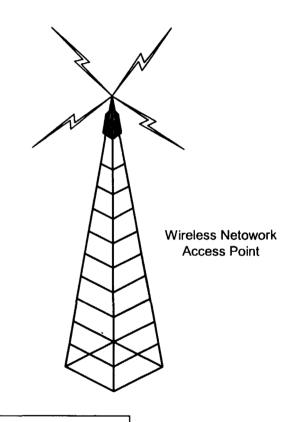




NCI Data.com, Omak 509 826-0300



A Microwave Transceiver card is installed in the customer's computer at home or office. Also installed is an outside antenna



Customer's Computer or Network sends and receives data via an NCI Data.com Access Point at Speeds 64kbps to 2mbps Plans are underdevelopment for 30 to 100mbps